

***Nesticella marapu* sp. n., a blind nesticid (Araneae: Nesticidae) from Sumba, Indonesia**

Suresh P. BENJAMIN

Department of Integrative Biology, Section of Conservation Biology (NLU),  
University of Basel, St. Johanns-Vorstadt 10, CH-4056 Basel, Switzerland.

Present address: University of California, Berkeley, Insect Biology Division – ESPM,  
201 Wellman Hall # 3112 Berkeley, CA 94720-3112, USA.

E-mail: Sureshb@nature.berkeley.edu

***Nesticella marapu* sp. n., a blind nesticid (Araneae: Nesticidae) from Sumba, Indonesia.** - A new species of the genus *Nesticella* is described from both sexes. It is characterised by the presence of a beak-shaped paracymbium. It has long legs and weak pigmentation but lacks eyes.

**Key-words:** *Nesticella* - Nesticidae - new species - troglobit - caves.

## INTRODUCTION

The spider family Nesticidae has been revised by Lehtinen & Saaristo (1980). It is the sister taxon of Theridiidae (Coddington, 1986; Coddington, 1989; Coddington, 1990; Griswold *et al.*, 1998). Spiders of both families construct webs with a supporting structure and with lines under tension termed gumfooted lines. The bases of these gumfooted lines are the only parts of the web that contain viscid silk (Benjamin & Zschokke, 2002; Benjamin & Zschokke, 2003). Nesticids are mostly found in caves. Among nesticid spiders collected during an expedition to the island of Sumba by the Naturhistorisches Museum, Basel, two adult specimens of an undescribed species were discovered. This new species has long legs, is pale and lack eyes, typical morphological adaptations for life in caves. Details of the expedition and a description of the locality are given in Bühler & Sutter (1951).

## MATERIAL AND METHODS

Morphological structures were examined on temporary mounts embedded in glycerin. All drawings were made with a Nikon Labophot-2 and a Nikon SMZ-U microscope with drawing tube. The methods are described in detail in Benjamin (2000) and in Benjamin & Jocqué (2000). Measurements are in mm. All specimens examined are deposited in the Naturhistorisches Museum, Basel, NMB. Terminology of male palpal sclerite follows Lehtinen & Saaristo (1980) and Coddington (1990).

## TAXONOMY

*Nesticella marapu* sp. n.

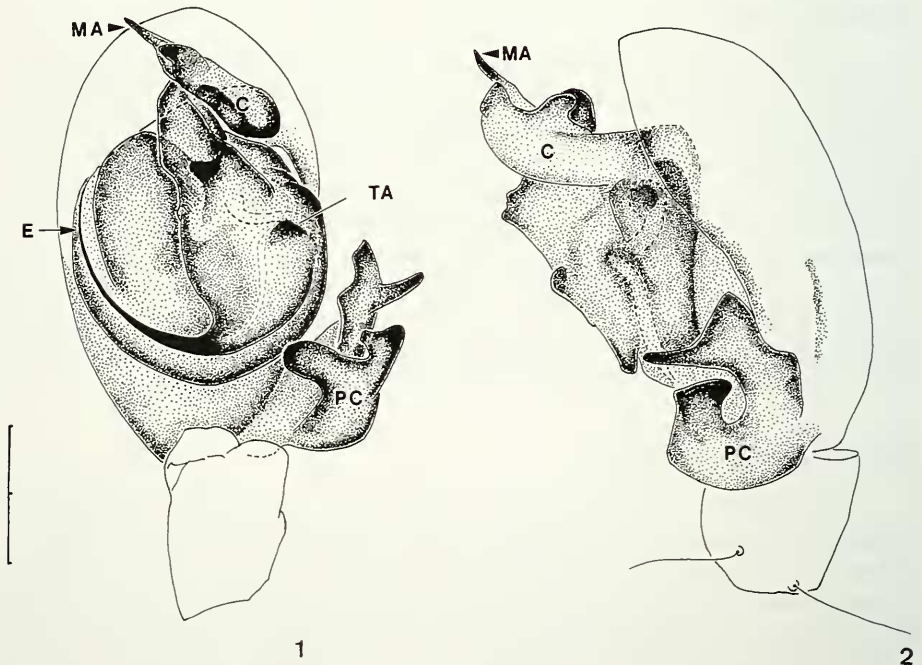
Figs 1-5

*Types:* ♂ holotype (NMB 2751a) and ♀ paratype (NMB 2751b), Indonesia, Sumba, Weimangura, Marro Cave, 440m, 25.08.1949, leg. Alfred Bühler and Ernst Sutter.

*Etymology:* The specific name is derived from Marapu, meaning spirits of ancestors. The main aim of the traditional Sumbanese religion is to maintain a peaceful and fruitful relationship with Marapu. Used as a noun in apposition.

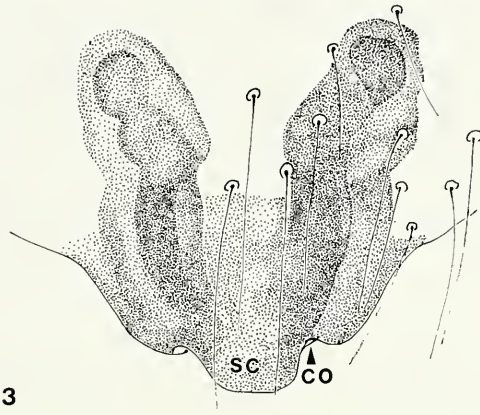
*Diagnosis:* *Nesticella marapu* sp. n. can be distinguished from all *Nesticella* species by the beak-shaped paracymbium and by the shape of the conductor.

*Description:* MALE (holotype). Colouration pale yellow. Carapace flattened, covered with some erect setae, mostly confined to the cephalic area. Eyes absent, no traces of eye sockets visible. Sternum covered with erect setae. Chelicerae without teeth, fangs reddish. Legs densely covered with thin long setae. Abdomen with some faint grey markings, covered with erect setae. Colulus very small, much smaller than that of the female, two erect setae present. Palpal paracymbium (PC) bifurcate, beak-shaped, both branches with distal modifications (Figs 1-2). Median apophysis (MA) tapering to a point. Tegular apophysis (TA) present in the form of a blunt elevation (Fig. 1; corresponding to "tegular apophysis 1" in Lehtinen & Saaristo (1980) and "theridiid tegular apophysis" of Coddington (1990).

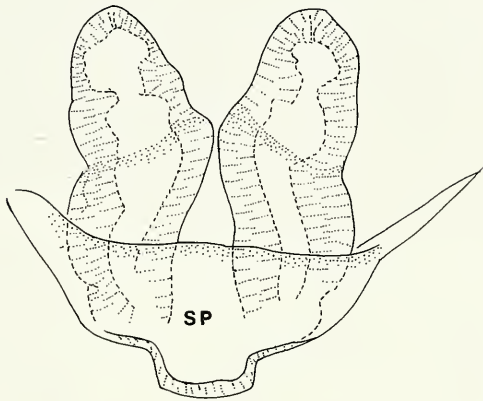


FIGS 1-2

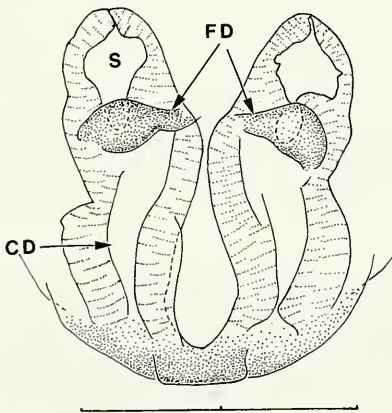
*Nesticella marapu* sp. n. 1. Left male palp, ventral view. 2. Ditto, retrolateral view. C conductor; E embolus; MA median apophysis; PC paracymbium; TA tegular apophysis. Scale line: 0.2 mm.



3



4



5

FIGS 3-5

*Nesticella marapu* sp. n. 3. Epigynum, ventral view. 4. Vulva, ventral view. 5. Ditto, dorsal view. CD copulatory duct; CO copulatory opening; FD fertilization duct; S spermatheca; SC scape; SP sclerotised plate. Scale line: 0.2 mm.

Measurements: total length 2.3; carapace length 1.2; carapace width 1.1. Legs:

	I	II	III	IV
femur	2.8	1.7	1.3	2.0
patella	0.4	0.4	0.4	0.4
tibia	2.5	2.2	1.8	2.3
metatarsus	2.4	1.0	0.6	1.7
tarsus	1.0	0.9	0.5	0.8
total	9.1	6.2	4.6	7.2

FEMALE. Carapace bright yellow, flattened, covered with erect setae. Eyes absent, no traces of eye sockets visible. Sternum bright yellow, with many erect setae. Chelicerae yellow with three reddish teeth on promargin of the groove, fangs reddish, sickle-shaped. Legs pale yellow, slender, densely covered with long setae. Palp with a long, sickle-shaped claw. Abdomen pale yellow with diffuse grey markings, covered with erect red-brown setae. Colulus large, with two setae on ventral surface.

Epigynum with a square scape projecting outwards (SC in Fig. 3) and extending into a thin sclerotized plate beyond the scape (SP in Fig. 4). Copulatory openings (CO) originating at lateral sides of the scape. Copulatory ducts (CD) leading inwards to the spermathecae (S). Fertilization ducts (FD) as in Fig. 5.

Measurements: total length 2.6; carapace length 1.2; carapace width 1.0. Legs:

	I	II	III	IV
femur	2.0	1.7	1.3	2.0
patella	0.3	0.3	0.3	0.3
tibia	1.7	1.0	1.0	1.8
metatarsus	2.2	1.5	1.0	1.8
tarsus	0.8	0.7	0.7	0.7
total	7.0	5.2	4.3	6.6

*Distribution:* Known only from the type locality. The Marro cave is about 3 km long and situated close to Kabalidana, west of Waimangura (Bühler & Sutter, 1951).

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